

## II. **REMARKS**

Please consider the following.

## III. **CLAIM STATUS**

The pending independent claims are 1, 23, and 27.

The pending claims are 1-3, 11-19, 23, 27, 36, 44, 48.

Claims 4-10, 20-22, 24-26, 28-35, 37-43, 45-47, and 49-64 are canceled.

Independent claims 1 and 23 are method and system analogs. Each is limited to machine structure to overcome the Bilski 101 rejection. Each claim is narrower than the original independent claim in requiring exercise of both promotions to receive a discount. Each claim is commensurate in scope with the original independent claims with respect to the determination of the second promotion; plural original claims defined that determination based upon prior purchase history, demographics, or prior promotion usage; claims 1 and 23 recite those three concepts (prior purchase history, demographics, or prior promotion usage) in the alternative.

Independent claims 1 and 23 are also narrower than the original independent claims by defining determining a first promotion for a product for which the consumer's purchase history record contains no purchase data.

## IV. **SUMMARY OF THE OFFICE ACTION**

The office action dated 12/5/2008 examines claims 1-64 noting that the office action is in response to the decision withdrawing the restriction requirement. The office action withdraws the finality of the prior office action, but makes the new office action final. Page 1. On 12/20/2008, the applicant filed a petition contesting the finality of the office action. Decision on that petition is pending.

The office action objects to claim 27. Page 2.

The office action rejects claims 1-19, 24, and 26-28 under 35 USC 101. Pages 3-4.

The office action rejects claims 59-64 under 35 USC 112, first paragraph. Page 4.

The office action rejects claims 59-64 under 35 USC 112, second paragraph. Page 7.

The office action rejects claims 1-3, 20, 21, 26-30, 33, and 34 under 35 USC 102 based upon Aggarwal. Pages 8-10.

The office action rejects claims 4-19, 22-25, 27, 31, 32, and 35-58 under 35 USC 103

based upon Aggarwal and Herz. Pages 10-13.

The office action rejects claims 59-64 under 35 USC 102 based upon Deaton USP 5,644,723. Pages 13-15.

The office action contains a section responding to the applicant's reasoning at pages 15-19.

## **V. OBJECTION TO CLAIM 27**

Claim 27, as objected to by the examiner, reads:

27. (Previously presented) A computer readable medium containing program instructions for execution on a computer system, which when executed by the computer system, cause the computer system to perform the method recited in any one of claims 1 to 9 and 26.

The examiner reasons that claim 27 is improper because it can be infringed without infringing claim 1. The applicant agrees. However, claim 27 is not a dependent claim. No one reading claim 27 would conclude that it is intended to be a dependent claim; a claim further limiting claim 1 to 9 or 26. Claim 1 to 9 and 26 all recite a "A computer-implemented method...." Claim 27 recites " A computer readable medium containing program instructions..."

No one, not one of ordinary skill in the art, one of extra ordinary skill in the art, or someone clueless about the technology, would conclude that a claim defining a "computer readable medium" was a further limitation on a claim reciting a method of use. Any PTO/MPEP guidance on this issue is mis guidance, contrary to common sense, logic, and the English language. Consequently, claim 27 is not a dependent claim. Reconsideration and withdrawal of the requirement is respectfully requested.

## **VI. REJECTIONS OF CLAIMS 1-19, 24, AND 26-28 UNDER 35 USC 101**

The most recent prior office action, the action dated 3/27/2006, did not contain a rejection under 35 USC 101. This is a new rejection not necessitated by any amendment.

The office action states "Here the claims fails to meet the above requirements because the steps are neither tied to another statutory class of invention (such as a particular apparatus) nor physically transform underlying subject matter (such as an article or materials) to a different state or thing, and the steps recited in the claims can be performed in the mind of the user or by the use of a pencil and paper." Page 4.

In response, the applicant amends these claims to tie them to another statutory class, the product class, via incorporation of the machine limitations performing the claimed steps.

## **VII. REJECTIONS OF CLAIMS 59-64 UNDER 35 USC 112, FIRST AND SECOND PARAGRAPHS**

The office action reasons that the specification does not convey to one of ordinary skill in the art printing both promotions on a single sheet of paper. These rejections are addressed to the extent the examiner finds the issues relevant to the amended claims, in view of the fact that claims 59-64 are canceled.

In reply, the applicant disagrees because the specification contains the following passage (with paragraph numbering defined by the publication of this application, US 20020077901

[0066] In step 5300, the more relevant promotion selected in step 5200 is paired with the low relevance promotion that the promoter wishes to provide to the consumer. As described above, "pairing" can indicate printing both the more relevant promotion and the low relevance promotion on a same piece of paper at, e.g., a promotion output device 634. "Pairing" can also indicate, e.g., displaying the promotions together on a single display. [Underlining added for emphasis.]

The office action reasons that the specification does not convey to one of ordinary skill in the art requiring the consumer to purchase both product items in order to obtain value of an incentive. In reply, the applicant disagrees because the specification discloses that one example of pairing is requiring exercise together:

[0017] As used herein, to "pair" promotions refers to any association of two or more promotions including printing together, requiring exercise together, displaying together, and/or showing together. Contrary to some common usages of the word "pairing," the present invention is not limited to associating only two promotions. Thus, three or more promotions may be "paired." [Underlining added for emphasis.]

The office action reasons that claim 59 is indefinite because it does not clarify if "product item" and the first or second item necessarily define to the same item. Previously pending claim 59 reads as follows:

59. (New) A computer implemented method for increasing the likelihood that a consumer either will (1) purchase a product item from a category of products from which said consumer has not previously purchased or (2) purchase a product item of a particular product that said consumer has not previously purchased, comprising:

- providing in a computer system a historical purchase record for said consumer;

- determining in said computer system a first determination from said historical purchase record for said consumer that said consumer has not purchased a product item from one of a first product category and a first product in said first product category;

- determining in said computer system a second determination from said historical purchase record for said consumer that said consumer has purchased a product item from one of a second product category and a second product in said second product category; and

- printing on a single sheet of paper a (1) first promotion for said consumer to purchase a product item from that one of said first product category and said first product that said first determination indicates that said consumer has not

purchased in order to obtain a first reward and (2) a second promotion for said consumer to purchase a product item from that one of said second product category and said second product that said second determination indicates that said consumer has purchased in order to obtain a second reward.

In reply, the undersigned has reviewed the claim and it appears to the undersigned to be definite, not vague and not ambiguous. Plural use of "a product item" necessarily implies by proper grammatical construction that the subsequently recited "product item" is not necessarily the earlier recited product item. Plural use of "a [noun]" is not indefinite, per se, under any claim construction legal rule, and makes perfect sense in this case.

Regarding claims 61 and 64, the examiner reasons that "product item" is somehow improper because the specification does not distinguish between "product" and "product item". In reply, the claims define subject matter, not correlation to the specification, per se. The word "item" has a well known meaning in the English language; a unit or element of a set. Accordingly, "product item" clearly specifies in a claim one element of a product, as opposed to the trademark name of the product.

## **VIII. REJECTIONS OF CLAIMS 1-58 UNDER 35 USC 102 AND 103 BASED UPON PRIOR ART**

### **A. REJECTION**

The office action rejects claims 1-3, 20, 21, 26-30, 33, and 34 under 35 USC 102 based upon Aggarwal. Pages 8-10. The office action rejects claims 4-19, 22-25, 27, 31, 32, and 35-58 under 35 USC 103 based upon Aggarwal and Herz. Pages 10-13.

### **B. DEFINITIONS IN THE SPECIFICATION**

The application contains the following relevant definitions:

[0014] As used herein, the term "promotion" refers to any offer, advertisement, incentive, coupon, and/or commercial for promoting one or more goods and/or services.

[0015] As used herein, to "exercise" a promotion refers to any redemption, consumption, employment, application, availment, and/or weilding of a promotion.

[0016] As used herein, the "relevancy" of a promotion refers to the likelihood that a promotion will be exercised.

[0017] As used herein, to "pair" promotions refers to any association of two or more promotions including printing together, requiring exercise together, displaying together, and/or showing together. Contrary to some common usages of the word "pairing," the present invention is not limited to associating only two promotions. Thus, three or more promotions may be "paired."

[0060] In another exemplary embodiment, the determination of the relevance of a promotion is made by examining the category purchase history of the consumer. Category purchase history, as used herein, indicates the total purchase history of the consumer within a particular category, whether or not the products originate with a particular promoter. Exemplary categories include, e.g.: ethnic food product categories, such a Mexican, French, or California cuisine; age-related food product categories, such as baby food; health food product categories, such as diet food, lactose-intolerant food; and religious food product categories, such as specialized Kosher products. The use of category purchase history to determine the relevancy of a promotion to a consumer allows the promoter to consider the entirety of a consumer's purchase history, rather than just isolated facets of the purchase history. For example, if a consumer has never before purchased Taco Bell-brand salsa, but often purchases other products that are classified in a "Mexican food category," then both the loyalty-based approach and the product line approach described above will indicate that promotions for Taco Bell-brand Salsa are of low relevance to the consumer. However, by examining the category purchase history of the consumer, such promotions are seen as highly relevant, since the consumer has often purchased products in the Mexican food category before. Thus the entirety of the consumer's purchase

history can be examined, and a single promoter can provide both the more relevant and the low relevance promotion if necessary.

### **C. DISCLOSED INVENTION**

These definitions list a "coupon" as a promotion, that pairing may be "requiring exercise together", and that "exercise" may be "redemption." This application addresses the problem of how to effectively market to a customer a product in a category of products when the available purchase history data for that customer does not show purchases for that product or in that category of products. See paragraphs 00005 to 0007. As noted in paragraph 0006, likelihood of any consumer exercising such a promotion is quite low. However, as noted in paragraph 0081, "By pairing a low relevance promotion with a more relevant promotion, the total rate of redemption can be increased and the payment to the practitioner increased." The basic concept of this application is that the effectiveness of such a promotion may be increased by requiring that promotion (for the product never before purchased by the consumer, insofar as the consumer's purchase history record shows) be redeemed together with a promotion targeted to the consumer based upon the consumer's purchase history record. Paragraph 0013, first sentence, and paragraph 0015. That is the core concept of this application.

Paragraph 0017, defines alternative forms of pairing, other than "requiring exercise together" (printing, displaying, showing). The detailed description contains alternative embodiments. In some of those alternative embodiments in which low relevance promotion is for a product or product category for which the customer's purchase history data shows that the customer has previously purchased. These alternatives are expansions of the core concept, and the applicant now disclaims these variations by amending the claims to be limited to a process in which the "low relevance" promotion is for purchase of a product in a category for which the consumer's purchase history data shows no purchases and the pairing is "requiring exercise together" of the two promotions to accomplish the stated goal of increasing the total rate of redemption.

### **D. SUPPORT FOR NEW CLAIM RECITATIONS**

Repeated use in the independent claims of at least one processor, a database, and a computer memory (with indefinite articles) reflects the fact that the specification discloses that various processing and database functions may be performed at different locations with different computer systems.

Support for the new limitations relating to the "low relevance" first promotion appear in the following sections of the specification.

[0005] Since historical purchase records only indicate what a consumer has purchased in the past, promotions that are targeted using only purchase history will not effectively introduce a consumer to a new product and/or a new product class. For example, if a consumer has never purchased a product from the snack food product class (e.g., chips, pretzels, etc.), then a traditional practitioner of targeted marketing would most likely never provide a promotion for a product in this class to this a consumer. Rather, the traditional practitioner of targeted marketing would likely confine the provision of promotions to those consumers who have purchased products in this class previously, greatly limiting the population pool that receives a promotion and the opportunity to grow this population pool. In other words, a traditional practitioner of targeted marketing would consider a promotion for a product in this product class to only be "low relevance," or of marginal interest to the consumer and unlikely to be exercised. As such, there is no chance given to the possibility that a consumer might try a new product and/or product class.

[0055] ... When a promoter wishes to provide a promotion that, according to traditional indicators, is only of low relevance to the consumer, the computer processor instructions and/or other information of analysis tools record 760 can be used to identify a promotion of high relevance to the same consumer so that the two promotions can be paired, and the likelihood that the low relevance promotion be exercised increased. Likewise, when a predetermined pair of promotions exists, then the computer processor instructions and/or other



information of analysis tools record 760 can be used to identify a consumer for which one promotion of the pair is more relevant, and the other promotion of the pair is of low (or unknown) relevance.

[0056] FIG. 6 is a flow chart that illustrates an exemplary method for performing the present invention. In this exemplary method, a single low relevance promotion drives the selection of a more relevant promotion to which it is to be paired. This method is particularly appropriate for promoting products in product classes and/or product industries that are "new" in the sense that the consumer has not purchased the product class and/or product industry before, in the sense that a particular store location has not carried a product class and/or product industry before, and/or in the sense that the product class and/or product industry itself is new. In each of these cases, there is little or no data extant for identifying consumers for whom a promotion related to a particular product is relevant. In fact, there might even be data that indicate that a promotion related to a particular product is not relevant to a consumer, in the case where the consumer has previously by-passed opportunities (such as promotions) to purchase a particular product. However, by pairing such a low or low relevance promotion with a more relevant promotion, the exercise rate of the low relevance promotion can be increased.

#### **E. PRIOR ART - AGGARWAL**

What is now claimed is not disclosed or suggested by Aggarwal.

Aggarwal is directed to determining data field subsets that are small enough to make feasible a computer implemented process of determining, for example, correlations between multiple people of frequency of purchase of a subset of products. Aggarwal discusses the generic problem as follows:

The difficulty that arises in high dimensional feature spaces is the inherent sparsity of data values. For example, in the above case when objects represented in the database as customer profiles, there may not be many clusters of customer

profiles that are similar (close) with respect to all the features: age, height, weight, sex, salary, number of cars, etc. Thus, when the number of features is high the data may become sparse.

And, for example, Aggarwal discloses determining likelihood that a particular consumer will purchase a set of products based upon those correlations. Aggarwal teaches ranking a list of predetermined purchase offers for products based upon those likelihoods, and then displaying the ranked list to the consumer. See for example Fig. 7 elements 706-710. Aggarwal discusses this feature in its "E-COMMERCE APPLICATIONS," sub section, stating:

Recommendations: In an e-commerce application it may be desirable to predict the purchasing characteristics of individual customers. Purchasing behavior predictions may be made by analyzing information stored in a database of data values. Computer technology enables databases of information regarding a customer's transaction history to be maintained. It may be desirable, for example for marketing purposes, to predict the types of products which may be preferred by a customer. Information stored in customer transaction databases may be analyzed to detect customers that exhibit "similar" purchasing behavior. The set of customers who are similar to a given target customer is referred to as a "peer group". Based on the purchasing behavior of the "peer group" it may be possible to predict the types of products which may be preferred by a target customer. The predicted (preferred) items may be provided to the target customer as a list of recommended items.

Promotion list: A promotion list is a list of items used to restrict the number of products which may be recommended to a target customer. For example, although a hundred thousand items may be offered for sale by a retail organization, it may be desirable to restrict the recommended items to one hundred of the items. This restricted list is referred to as a promotion list. A promotion list may be used, for example, in order to promote the sale of specific

products.

Peer group: A peer group is a group of data values "similar" to a given target value. For example, each data value may correspond to a transaction or purchase(transactions or purchases) made by a customer. A data value corresponding to a transaction may include information on items for sale, quantities of items for sale, numbers of items purchased belonging to various product categories, or frequency of purchase of items for sale. As a peer group is "similar" to a given target value, the purchasing patterns of the peer group may be used to make recommendations.

#### **F. AMENDED CLAIMS COMPARED TO AGGARWAL**

Aggarwal does not disclose determining a product category (or product) for which there is no data indicating the consumer has previously purchased, and Aggarwal does not disclose setting a "low relevance" promotion for that consumer to that product category (or product), and then pairing that low relevance promotion is a promotion determined to be relevant to the consumer. In contrast, the claims now define these limitations.

#### **G. AMENDED CLAIMS COMPARED TO AGGARWAL AND HERZ**

Herz also does not disclose the concept of this application or the limitations of the claims discussed above. In fact, the examiner relies on Herz to disclose optimizing sales promotions by analyzing customer purchase history, coupon usage, and demographics, and displaying a promotional message. Office action pages 11 - 12. Those features are not relevant to the new limitations of the claims noted above.

At office action page 12 lines 18-21, the examiner reasons as follows "Since Aggarwal stores transaction history of every item purchased, whether the promotion is for goods from the same or different promoter, whether the product is new to the store or customer would not make a difference to Aggarwal's promotional list." In response, please note that is no longer relevant to the claims since the claims specifically define determining the low relevance promotion based upon the absence of purchase data therefore in the customer's purchase history record, and

Aggarwal does not disclose or suggest that concept.

In summary, the claims have been amended to define a novel and non obvious step relating to selection of the low relevance promotion, and the novel step of coupling such a determined promotion to a promotion determined for the same consumer to be of high relevance. In view of the foregoing, the applicant submits that reconsideration and withdrawal of the prior art rejections is proper.

**IX. REJECTIONS OF CLAIMS 59-64 UNDER 35 USC 102 BASED UPON PRIOR ART**

The office action rejects claims 59-64 under 35 USC 102 based upon Deaton USP 5,644,723. Pages 13-15.

Claims 59-64 are canceled. However, the applicant discusses the relevance of Deaton to the pending claims.

The examiner relies upon Deaton to disclose providing multiple promotions to a consumer, and the concept disclosed in Deaton of providing a promotion for a product to a consumer if the consumer's record shows that the consumer has not purchased that product. The examiner cites the disclosure in Deaton of providing an incentive for purchase of a brand of coffee if the consumer has not previously purchased that brand.

In response, the applicant notes that pending claims define requiring both the first promotion (for a product of category for which the consumer has not previously purchased), the low relevance promotion/product, and a second high relevance promotion for a product the consumer is likely to purchase, be exercised by the consumer together, in order to incent the customer to purchase the first product. Deaton does not disclose or suggest that concept.

Respectfully submitted,

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